
Strychnos puberula (Loganiaceae), a New Species from Panama

Gordon McPherson

Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, U.S.A.

gordon.mcpherson@mobot.org

ABSTRACT. *Strychnos puberula* McPherson (Loganiaceae) is described as a new species from Panama, differing from the otherwise similar *S. guianensis* (Aubl.) Mart. in its indument of minute hairs, lack of leaf domatia, consistently 4-merous flowers, and short-stipitate, relatively thick-walled fruit.

Key words: IUCN Red List, Loganiaceae, Panama, *Strychnos*.

Specimens of a small-leaved, small-fruited *Strychnos* L. (Loganiaceae) collected in a lowland forest in the Donoso District of Colón Province, Panama, could not be matched to any of the 11 species listed in the *Catálogo de las Plantas Vasculares de Panamá* (Correa et al., 2004) and represent an undescribed species. Very similar to the widespread and variable *S. guianensis* (Aubl.) Mart., the new species contrasts, nevertheless, with that species in small but consistent features of vegetative and fruit morphology, as detailed below. From *S. peckii* B. L. Rob., to which it keys in the *Flora Mesoamericana* generic treatment prepared by A. E. Brant and G. Davidse (2009), the new species differs most conspicuously in having smaller leaves ($5.5\text{--}10.2 \times 2\text{--}4.2$ cm vs. ca. 15×8 cm) and 1-seeded fruits (vs. many-seeded).

***Strychnos puberula* McPherson, sp. nov. TYPE:** Panama. Colón: W part of province, site of proposed copper mine, $08^{\circ}52'18''\text{N}$, $080^{\circ}41'05''\text{W}$, lowland forest, 150 m, 16 Apr. 2009, collected with J.-Y. Serein, G. McPherson 21021 (holotype, PMA; isotype, MO). Figure 1.

Species *Strychnoti guianensi* (Aubl.) Mart. similis, a qua indumento brevior, foliorum nervis in axillis domatiis non instructis, floribus 4-meris (vs. 4 vel 5-meris) et fructibus stipitatis (vs. sessilibus) pericarpio in sicco crassiore (ca. 1 mm vs. minus quam 0.5 mm) differt.

Woody vine in canopy trees; branchlets slightly flattened to subterete (the older ones slightly angled), minutely appressed-puberulent, very sparsely lenticellate; tendrils (uncoiled) ca. 7–8 cm, appressed-puberulent; spines absent; interpetiolar line evident. Leaf blades oblong-elliptical to narrowly ovate, $5.5\text{--}10.2 \times 2\text{--}4.2$ cm, base obtuse, apex acuminate, 5-

plinerved, the basal pair of secondary veins arising at or to 2 mm from the blade base, and the second pair arising (5–)8–12 mm distally; midrib slightly immersed adaxially, prominent abaxially, the secondary and higher order venation very slightly raised adaxially, more evidently raised abaxially; the adaxial surface glabrous except for the base of the midrib, which is appressed-puberulent, the abaxial surface sparsely and very obscurely appressed-puberulent, tufts of hair absent from axils of veins of the abaxial surface; raised portion of stem at base of petiole 1.5–2 mm, appressed-puberulent; petiole 4–6 mm, channeled, appressed-puberulent. Inflorescences axillary, raceme-like, of 5 to 9 flowers, the axis (2–)5–10 mm, appressed-puberulent; bracts and bracteoles ca. 2 mm; pedicels 1–3 mm in flower, 2–4 mm in fruit. Flowers 4-merous; calyx 1–1.5(–2) mm, the sepals united only near the base, the lobes sometimes unequal, ciliate and subglabrous to puberulent abaxially; corolla white, ca. 6.5 mm, tube 3–3.5 mm, lobes 3–3.5 mm, reflexed, papillose (especially distally) on both surfaces, long-pubescent near the base of the lobes adaxially and in the tube; stamens ca. 2 mm, glabrous, the anthers broadly and submedially affixed, ca. 0.8 mm; ovary 1 mm, glabrous; style 6 mm, glabrous. Fruit pale yellow (not fully mature), subspherical, 14–20 mm diam. (dried), but narrowed basally into a foot or pseudopedicel ca. 2×2 mm at the base, apiculate distally, glabrous, the dried surface wrinkled and very shallowly tuberculate; fruit wall (dried) 1 mm thick.

Habitat, distribution, and IUCN Red List category. *Strychnos puberula* has been collected in one lowland rainforest of western Colón Province, Panama. Since only the type locality and one other site ca. 5 km away are known, *S. puberula* is assigned the IUCN status of DD or Data Deficient (IUCN, 2001).

Discussion. *Strychnos puberula* strongly resembles some forms of the variable *S. guianensis* in leaf size ($4\text{--}7 \times 1.5\text{--}3.1$ cm in the latter species) and shape (lanceolate to elliptic in *S. guianensis*), some floral details (subglabrous sepals, subequal corolla lobes and tube), and in its 1-seeded fruit, but differs in that its vegetative indument consists of minute appressed hairs (vs. longer and suberect to erect hairs

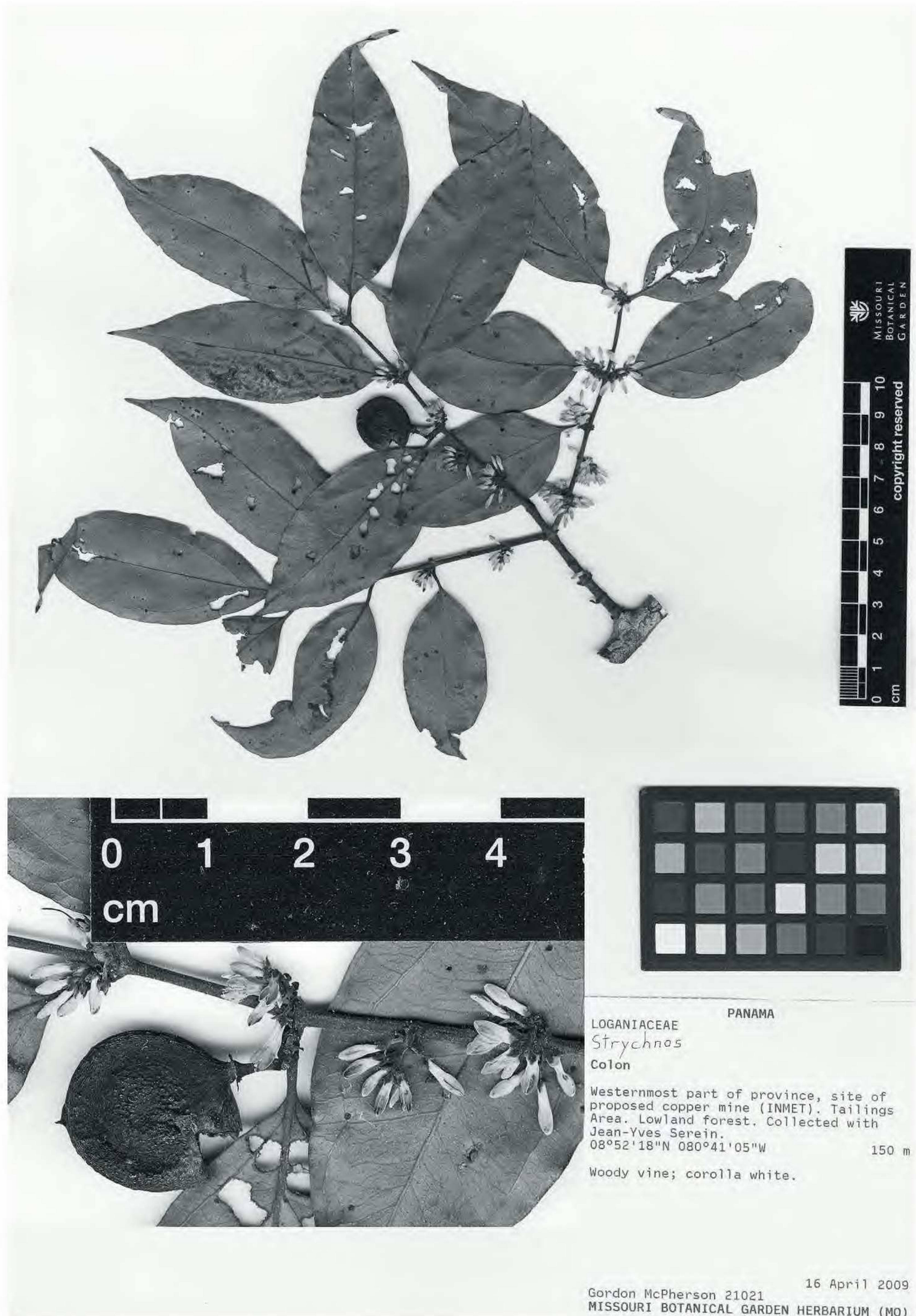


Figure 1. Isotype of *Strychnos puberula* McPherson (McPherson 21021, MO).

in *S. guianensis*), the axils of its secondary veins are not occupied by tufts of hairs (vs. tuft-domatia present), its flowers are 4-merous (vs. (4)5-merous), and its fruit exhibits a short basal stalk and has a wall thickness, on drying, of 1 mm (vs. fruit rounded-

sessile with a wall < 0.5 mm thick). *Strychnos guianensis* is widespread in South America and is also known from the Pacific slope of Costa Rica, whereas *S. puberula* is apparently confined to the Atlantic slope of central Panama.

Paratypes. PANAMA. **Colón:** Donoso, W part of province, site of proposed copper mine, 08°49'28"N, 080°39'29"W, 180 m, *G. McPherson 19761* (MO, PMA); 08°52'18"N, 080°41'05"W, 150 m, *G. McPherson 21020* (MO, PMA).

Acknowledgments. It is a pleasure to acknowledge my debt of gratitude to Jean-Yves Serein, without whose skills as a climber and collector the flowers of this new species would still be unknown. I also thank Stephanie Keil and Fred Keusenkothen for their help in preparing Figure 1.

Literature Cited

- Brant, A. E. & G. Davidse. 2009. *Strychnos* L. Pp. 637–640 in G. Davidse, M. Sousa S., Knapp & F. Chiang (editors), *Flora Mesoamericana*, Vol. 4(1). Universidad Nacional Autónoma de México, México; Missouri Botanical Garden, St. Louis; The Natural History Museum (London), London.
- Correa, M. D., C. Galdames & M. S. de Stapf. 2004. *Catálogo de las Plantas Vasculares de Panamá*. Quebecor World, Bogotá.
- IUCN. 2001. *IUCN Red List Categories and Criteria, Version 3.1*. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland, and Cambridge, United Kingdom.